DISCUSSION PAPER:

A New Model for Industry Training in British Columbia

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Ministry of Advanced Education

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A New Model for Industry Training

EXECUTIVE SUMMARY

This discussion paper provides an overview of why the province needs to develop a new model of industry training, and it outlines a framework for elements of that model which may be developed through different strategies. Key issues are identified and the principles that underlie a new model for training in British Columbia are articulated.

Government is seeking input to maximize the success of the new model, as this is not the first time industry training has undergone major change in the province. When the Industry Training and Apprenticeship Commission (ITAC) was created in 1997, similar needs were identified, among them the need for an industry-driven training system.

Despite its best efforts, ITAC was not able to implement the sweeping changes needed in British Columbia to make the province not only competitive but a leader in developing its resources. The government has promised a new era for British Columbia and is planning for workforce development to address current and projected skills shortages.

Decisions made about industry training now will affect not only current workers, but also future generations of workers. It is important we learn from past experiences. Change is needed, not for the sake of change, but to provide relevant training with the highest standards for our workforce, and to encourage youth to choose industry training as a career path.

Information on the public consultation process is outlined in this paper. Public input into the elements and implementation of the new model is important to ensure that all regions of the province are heard before final decisions are made. Your views are important and necessary to inform decisions that can make a difference.

PUBLIC CONSULTATION

You may be reading this paper as part of a regional forum, as a document that has been

e-mailed or mailed to you, or on the Internet, as the paper is being posted to the Ministry of Advanced Education's Web site. Please feel free to share this paper with others who are interested and who may wish to inform the discussion underway about the new model of industry training.

Over the next two months, a series of regional forums will be held in key locations selected to promote shared perspectives and maximize the input to government about the proposed changes. The Ministry of Advanced Education will work with employers and business associations to select venues and provide information on opportunities to participate in the regional forums. For more information on these forums, or to download additional copies of this discussion paper, see the Ministry of Advanced Education's Web site at

http://www.gov.bc.ca/aved/

Whatever opportunity you have to provide input, your feedback is welcome and encouraged.

To provide input to this paper, please write, fax or email your comments to the following:

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Or respond on the Internet at http://www.gov.bc.ca/aved/

INTRODUCTION:

In British Columbia, training for trades and occupations is done through post-secondary institutions and private trainers as well as in the workplace. Government has made a commitment to fundamental changes that will impact the Entry Level Trades Training (ELTT) programs formerly administered by the Industry Training and Apprenticeship Commission (ITAC). It also will reshape apprenticeship training in the province. ITAC is being closed down and will be replaced by a new model of industry training.

ELTT programs account for approximately two-thirds of the ITAC budget for program delivery. The remaining funds are used to support current apprentices' technical training requirements through a network of public and private training institutions and agencies. As well, ITAC worked to develop new trades and occupations to serve emergent needs of employers.

All of these programs and services will be reshaped into a new model that will be responsive to the needs of learners, employers and the market place. It will address current and projected skills shortages through timely and responsive training models.

Government's review of industry training identified a number of problems with the system administered by the ITAC:

- Variability of ELTT duration: two programs may offer the same training credit and yet differ in currency, quality and length.
- Lack of credit for ELTT toward apprenticeship training: a learner may take a program of up to 12 months in length without assurance that industry will give consistent recognition to the skills and knowledge gained; credit may be as little as 6-8 weeks of technical training and varies by employer and trade.

- The inability to meet employer needs for trades workers and address skills shortages. Employer needs identified included multi-skilling, specific skills sets to meet current employment openings, and increased opportunity to identify emergent needs and have training developed to meet them.

- Inflexible training methods based on time rather than competencies have been a barrier to innovation in training design and delivery.

- Many people drop out of their training program and fail to qualify to work in their trade or occupation. A significant investment of time and money may be wasted.

- Many learners have to start over again when they begin a new program or trade that overlaps the knowledge and skills they have already. These learners are less likely to be flexible in gaining new skills, and are less likely to complete training to the level of their personal goals.

- Many employers do not commit to the time-based system of apprenticeship that requires on-going training and close supervision for up to four or more years.

- Industry is not attracting young people; the average age of apprentices is 28, and many are in their thirties or forties before they complete their training.

- Lack of qualified workers is a continuing concern; half of the current apprentices do not complete their training to become qualified in a trade.

In short, the system of industry training is not able to respond quickly enough to the emergent and growing needs of British Columbia's changing economy and demographics. A more effective and efficient industry training system is currently under

development. It will be driven by the needs of industry and address skills shortages by facilitating a consistent supply of qualified trades workers.

The closure of ITAC is part of the transition to a new industry training model. The establishment of an Industry Transition Advisory Committee[1] (TAC) comprised of business, labour and education representatives was a first step. This committee has been meeting since April and has prepared the following schematic to describe its vision for a new training system and a governance structure for the system that can more responsively meet the needs of business and learners.

For a more elaborated overview of the key elements of the New Model of Industry Training, see Appendix A of this paper.

[1] For more information on the Committee, see http://www.aved.gov.bc.ca/industrytraining/Q_A_list.htm

THE NEW INDUSTRY TRAINING MODEL: *A COMPARISON*

THE OUTCOMES	
New Model	**ITAC**
Focused on outcomes, i.e. learners being employed.	Focused on inputs.
System will be developed for measuring outcomes.	No system available for tracking outcomes.
Full accountability for all major participants.	Lacked accountability.
GOVERNANCE	
New Model	**ITAC**
Industry Training Authority Board with corporate and fiduciary responsibility.	Board with stakeholder representatives.
Board decision-making is streamlined with a nine-member Board.	Board decision-making complicated; a 25-member Board; four stakeholder groups having individual vetoes.
CEO appointed by and accountable to the Board.	CEO appointed by government on recommendation of Board; reports to the Board.
Staff hired by CEO; small core group.	115 staff; public servants
Flexible advisory structure.	Large, highly structured trade advisory committees.
Interface with one Ministry, Advanced Education.	Interfaces with two ministries.
THE TRAINING SYSTEM	
New Model	**ITAC**
One training system.	Two training systems: entry level trades training and apprenticeship.
Multiple entry and exit points for learners.	Limited entry and exit points for learners.
Modular and competency-based training. Time-based training continues where appropriate.	Time-based training.
Tuition fees at approximately 15% of cost.	No or very low tuition fees for apprenticeship training.
Credentials with flexibility to facilitate additional training.	Credentials provided only on final completion.
Use of Red Seal certification continues.	Focus on Red Seal certification.
Emphasis on innovation and new delivery models.	Emphasis on the core business using traditional methods.
Focus on attracting secondary school students. Local flexibility to develop a variety of transition programs that may include technical training.	Secondary School Apprenticeship program comprises work experience only. CTC programs may offer some post-secondary training credit.
Utilizes full range of public & private trainers.	Focuses on public training institutions.
Multiple funding sources contemplated with the Board allocating the funds.	Virtually all provincial funding. Ministry of Advanced Education allocates funds.
THE RISKS	
New Model	**ITAC**
Puts additional responsibility on the learner to fund and for the learner to make employment connections.	Inflexible to changing market needs.
Puts additional responsibility on industry to define training need and employ learners.	Leaves much of employment need definition to training organizations rather than business.
Relies extensively on coordination of action being undertaken by the main participants.	Puts the coordination role in the hands of ITAC with the attendant costs.

ROLES AND RESPONSIBILITIES

Government:

Government will ensure the new model allows employers and learners across the province to participate and benefit, that regional economic development is encouraged and supported, and that the resources available are used in the fairest and best way. There is a continuing and necessary role for government in maintaining standards and credentials for provincial and interprovincial (Red Seal) trades. Government will also ensure that adequate labour market information is available and used appropriately to support human resource planning for development and delivery of industry training.

Integration of industry training as part of the broader education and training system of the province, including development of new diploma and applied degree programs for learners, will be supported and monitored by government

Programs developed to meet short-term needs must also develop long-term skill sets to have lasting value. Employers are expected to train where the need is so specific that there is no other company that will need or value the skills set – an example would be training to use equipment unique to that company. Public funds should support transferable skill development. Government plans to recognize these transferable skills through articulation of learning and credentials to increase training flexibility and attract more youth to trade and technical careers.

Post-secondary education institutions and trainers who deliver industry training will be encouraged and supported to develop integrated and "laddered" programs to the level of applied degrees. Learners may begin learning in the workplace or in a classroom and continue their learning in a variety of ways. More information on this element of the new model is provided later in this paper.

Industry:

Employers want to ensure that BC workers can meet the skills required by the demands of the economy. They want appropriately trained people to do the work at hand, and need ways to develop and recognize the specific skill sets which are needed for successful operation and expansion of their businesses.

Employers also need mechanisms for the skills and experience of workers to be accredited against provincial or interprovincial trade or occupational standards that have been developed with industry to reflect the needs of the workplace.

As government's role in the development and delivery of industry training narrows to a focus on maintaining provincial standards and credentials, industry's role will broaden to incorporate promotion and marketing of industry careers to youth and others who can help to solve skills shortages. Industry will also take a larger role in identifying training needs and working with training institutions to develop programs to meet these needs. Finally, employers and industry groups and associations will be expected to take a leadership role in strategic planning, including K-12 links.

Learners want assurance that skills gained in the workplace will be fairly compensated, and recognized both by BC employers and those in other provinces. They expect a fair and objective assessment of their skill set that can result in a credential, whether their training is school-based or on-the-job training. In the new model of industry training, learners will have more options to develop skills sets and more ways to train. They will be expected to choose and schedule their own training, as do other post-secondary learners, and they will be expected to develop a career plan to meet their education and career goals.

Trainers:

Public and private trainers who deliver industry training will be expected to offer relevant programs, ensure employer and learner satisfaction, and to comply with the information and accountability needs of government and industry. They will be key to ensuring that training is changing to match changes in industry and technology that require new skills sets and current knowledge of workplace standards. As in other program areas, they will be expected to anticipate and respond effectively to the needs of learners and employers through collaborative planning processes aimed at developing an integrated post-secondary education system.

CHALLENGES

British Columbia's economic future depends as much on the availability of skilled workers as it does on attracting new investment to the province. Qualified workers are needed to replace those retiring, as well as to fill job openings created by the economic expansion in the province. We must ensure that a lack of trained people does not become a barrier to economic growth, and that the training provided with public funds meets the needs of both employers and trainees.

The provincial government spends about $70 million annually on industry training programs administered through ITAC, which oversees training for trades and technical occupations. Industry also contributes to training of employees in the workplace. Currently, there are 16,500 apprentices enrolled in the system, with another 14,000 trainees engaged in Entry Level Trades Training (ELTT) courses at public post-secondary institutions.

Despite this considerable investment of resources, the number of apprentices in traditional trade areas has not grown appreciably over the past five years, raising concerns that the next five years will leave British Columbia poorly positioned for prosperity through growth.

THE SOLUTION: A NEW INDUSTRY TRAINING SYSTEM FOR BRITISH COLUMBIA.

The Transition Advisory Committee proposes the following as a mission statement for the industry training system: *To provide effective and efficient industry- focused training that meets the skill requirements of employers and career aspirations of learners in British Columbia.*

A new model for an improved, expanded and effective industry training system in British Columbia is currently being developed in support of this goal. The new model will be driven by business and will see costs for industry training shared by trainees and employers; public funding through government will not be the sole source of funding.

The evolution to a more flexible, innovative industry training system will begin immediately but will take place over time. The option for employers and their apprentices to use "traditional" apprenticeship training models will be retained as appropriate, but new mechanisms for skills development, for assessment of skills and knowledge, and more flexible ways to build to other credentials will be added.

Young people and their parents will be encouraged to recognize the real opportunities presented by trades and technical occupations. Employers and/or sector associations will actively engage with parents and the secondary school system to promote and market trades training and career opportunities.

KEY PRINCIPLES

These Key Principles Will Guide Program Development And Delivery In The New Model For Industry Training:

- Industry problems are best solved by industry-developed solutions.

- A closer relationship between trainers and industry will result in better training that is relevant to the needs of industry, workers and learners. Trainers will have more responsibility for program and curriculum development and design, working directly with industry clients.

- Industry should determine the priorities for training to produce a highly skilled, employable labour force.

- The achievement of standardized competencies with appropriate assessment, recognition and crediting of these competencies will be a key element of the new model.

- An efficient and effective training system recognizes both formal and informal learning and practical experience; it is coordinated with the K-12 education system and the post-secondary education system to facilitate transition from school to work and to attract youth into areas of skills shortages which have well-paid employment.

THE DIFFERENCES – THE OLD SYSTEM AND THE NEW

The new system will be recognizably different in how it responds quickly and appropriately to the changing needs of individuals, the labour market and emerging occupations. The needs of the workplace must have more influence on the type of training and credentials workers receive. This does not mean traditional occupations and credentials will cease to exist, but the system must be built in such a way to accommodate change when it is warranted.

To better understand how the new training system will look to employers and employees, consider the example of the carpenter trade. Under the old system, carpentry apprentices

were required to have a job before they could gain access to training. Once registered via an apprenticeship agreement, apprentices began a four-year, on-the-job training program that included four ITAC-scheduled sessions of in-school technical training, usually one session per year. They were also required to receive practical training in all facets of the carpentry trade. In order to acquire the skills and knowledge to achieve journeyperson certification, an apprentice employed by a *forming* contactor might be forced to quit their job to find work with a *framing* contractor and then change employers again to gain experience with a *finishing* contractor.

There was no opportunity under the old system *for progressive credentials such as forming carpenter, framing carpenter or finishing carpenter.* There was no opportunity either for apprentices to have access to training deemed part of another trade, even if those skills were required for an individual's job.

THE NEW SYSTEM:

Under a new, more flexible system, training will be realigned to match employment opportunities and there would be opportunities for training other than becoming an apprentice. Training for some trades and occupations may be expanded; in other areas, because of lack of demand, training could be downsized. New kinds of programs would be developed to meet the needs of employers. For example, programs that provide "up front" training will be developed. Trainers would be provided with the competency profile for the individuals to be trained and would develop the training needed to meet the standards and competencies identified in the training profile. Government will no longer determine the curriculum or develop classroom materials, but will be responsible for maintenance of current standards and development of new assessment standards linked to provincial and interprovincial credentials.

Within this framework, the person who wants to learn skills in the carpentry trade might register as an apprentice with an employer to learn some of the trade skills. Once learned, these skills can be recognized by 'incremental' or specialized credentials and

these credentials will be recognized as progressive steps to acquire Interprovincial "Red Seal" credentials. In the example above, learners could get a certificate as a *framing carpenter* or a *level one carpenter* and could eventually gain a Red Seal credential as a carpenter if they want to progress to this level.

Modularization of current trades curriculum and the implementation of theoretical and practical assessments will allow earlier receipt of credentials tied to specific skill sets. As well, if the carpentry apprentice has skills and knowledge that are also needed for the roofing trade, there would be articulation so that they do not start all over again if they want to learn that trade.

On-the-job training through apprenticeship will not be the only way to get trained. Trades training and training for related occupational credentials will be provided by training institutions and through private trainers, and by public-private partnership arrangements. Learners will be able to enroll in co-op programs, which combine classroom and work experience, and in programs which offer dual credit – graduates can gain a trades credential and also receive certificate, diplomas and applied degrees, building their credits in a cumulative way. In their program, they will receive credit for what they have learned in the workplace, as well as what they learn in the classroom.

As do other students, these learners will have more responsibility to arrange their education and training and greater choice of who their trainers will be. Learners will pay tuition fees for training to public and private trainers and will enroll at the institution or trainer of their choice. They will review course calendars provided by training institution, most of which are now on-line, to make choices. Many institutions now register students on-line.

Some programming will be provided on-line. For example, the theory portion of training for a particular trade might be delivered via distance learning anywhere in the province. In other cases, learners will have the option to take technical training in the workplace, in the evenings and in other innovative ways. If there is learner demand, a program can be

developed to meet the needs of a specific group or type of learner. Employers will have the opportunity to identify what training is needed for their employees and how, where and when it should be delivered.

The province is not abandoning traditional apprenticeship. British Columbia will continue to be an active participant in developing national trade standards and the Red Seal Certification program. Once ITAC offices close, employers and apprentices will register training agreements through an Internet-based, self -registration system

The new Internet self-registration system is not a system for enrolling for training at post-secondary institutions and trainers. Online registration for post-secondary programs is available through most public post-secondary institutions. The self-registration system is not intended to schedule individual apprenticeship technical training as was previously done by ITAC.

The new system is intended to allow people to register themselves as apprentices, and once registered, access, review and update their employment record and print the record. It will allow employers to access training records for their apprentices, validate and update their list of apprentices, and it will allow for data entry of technical training the apprentice has taken in the workplace and in school. This could include a record of specific competencies, and industry training credentials.

Red Seal and Provincial Trade exams will continue to be available. Options for invigilation of written exams include delivery of these services through institutions, by Government Agents, or delivery via contract with one or more agencies through a Request for Proposals process.

New practical assessments, tools and processes will be developed. Other countries and some provinces have implemented practical assessments to allow learners to demonstrate what they know and can do. It is anticipated that these types of assessments will be implemented in British Columbia as additional elements of the assessment and

examination system to be used as needed for credentials or to establish credit towards a credential. Learners who have completed traditional apprenticeship programs will continue to write Red Seal exams, but new assessments will also be available to reflect competencies requested by employers.

DEVELOPING THE NEW MODEL

Several steps to develop a new industry training system have already been taken. One of the first was the appointment of the TAC in April 2002. The committee comprises business, labour and education representatives. TAC has proposed the establishment of an *Industry Training Authority*, which will be a stand-alone agency, responsible to government. The *authority* will comprise a nine-person board of directors as well as a small management team and staff responsible for program administration and client services formerly delivered through ITAC.

The *authority* would be established as an agent of government through legislation that would outline its mandate and powers for governance of industry training and apprenticeship. As proposed, the *authority* would manage program development and delivery, provide all client services, have responsibility for allocation of funding, and select trainers and contractors to deliver programs and services. The authority would also deal with complaints and appeals regarding apprentices, employers and programs under their jurisdiction. Government would retain the responsibility for provincial standards and credentials.

A number of pilot projects identified through a Request for Proposals are being developed as part of the restructuring of industry training. The pilot projects provide opportunities to test training ideas and to develop and share new approaches and practices. They cover a range of training development across sectors such as heavy industry, oil and gas, automotive and construction, and are intended to demonstrate the feasibility of key elements of the new model.

The pilot projects have been selected to demonstrate specific elements of new models for program development and delivery, and new ways to credential workers to standards that employers recognize. The pilot projects outlined in *Appendix B* illustrate a number of elements of the new model that are slated for early testing. Private trainers, school districts, public post-secondary institutions and equity groups have submitted proposals indicating they are ready and willing to do things in more efficient and effective ways. More pilot projects are anticipated and will serve to demonstrate viability of key elements and allow best practices to be shared.

In order to align training with the needs for specific and transferable skill development, the funding mechanisms for program delivery will change. As envisioned by the TAC, the allocation of training funds will align training delivery with available jobs and ensure that the training can be delivered to current workplace standards. Needs and priorities will be identified annually and some will be addressed through a Request for Proposals process open to both public and private trainers. Consultation will further inform the development of a new funding model.

Competency–based Assessment:

Competencies are the core of learning and certification in the new model. This concept is not new in British Columbia. Competencies are already defined for trades in B.C., and currently Interprovincial Standard Red Seal credentials are linked to competencies agreed to and validated across Canada. For this reason, interprovincial credentials tie to national and international job classifications systems and are used as an agreed upon starting point for breaking down jobs into tasks and skills at the federal and provincial levels and by many public and private employers.

Current assessment processes, some of which are tied to time on the job only, do not allow for practical assessment of competency at the task and skill level. There is no way for a worker to demonstrate to a set standard what they know and can do other than at the full trade level.

As employers know, no two jobsites are alike, and the scope of work is a big factor in how long it takes to learn, and in what is learned at the worksite. A competency-based system would allow workers to be tested when they are ready. If they are able to demonstrate that they can do work to agreed industry standards, they would receive credentials that recognize their skills.

If the employer does not require all the task and skills competencies for a full trade credential, he or she should be able to identify the tasks and skills required for the job and work with a trainer to develop the training if necessary. This approach would allow many young people into trades who currently do not have opportunities.

As the processes are developed, there is a need to ensure the mechanisms for competency-based assessment are fair and are available to those who want to access them across the province. Further consultation will be undertaken in the development and recognition of task and skill sets for training and credentialing. The TAC envisions this occurring through a variety of mechanisms that involve trainers, industry and workers.

Compulsory Trades:

Compulsory trades are enabled by the current Industry Training and Apprenticeship Act that allows their designation. In these trades it is mandatory that journeypersons must hold a valid *Certificate of Qualification* to practice their trade and apprentices must be registered through an apprenticeship agreement. No one other than an apprentice or journey person may work in these trades. Across Canada, the compulsory trades vary from province to province so that a compulsory trade in one province may not be compulsory in another. Tradesworkers from other provinces are required to hold a British Columbia Certificate of Qualification in order to be employed within the province in one of these trades.

The compulsory trades are:

- Automotive service technician
- Automotive collision repair technician
- Automotive refinishing technician
- Power line technician
- Electrician
- Sheet metal worker
- Roof, damp and waterproofing technician
- Plumber
- Steamfitter/pipefitter
- Sprinkler system installer
- Refrigeration mechanic

The designation of a trade as compulsory erects a legal barrier that prevents workers from demonstrating or achieving competency outside of an apprenticeship agreement. For this reason, it prevents workers in one trade from accessing training which is designated as part of another compulsory trade.

The development of mechanisms to allow people to demonstrate their skills and knowledge and get credentials is essential to increasing the number of trained workers. The focus should be on the outcome with multiple ways to get there. The overlap of trades and technical careers is increasing, as technical knowledge is needed now more than ever before. A new model must ensure that health and safety considerations are in place to protect the public, but recognize that the mechanisms to ensure this may change.

A key question the TAC is grappling with is the need for mandatory training requirements, and how legislation should ensure public safety. One perspective is that compulsory certification should not be part of training, but part of licensing through other Ministries in the provincial government or with local government licensing and inspectional authorities.

The opposing view is that the removal of compulsory certification designation will ultimately result in the 'deskilling' of trades by removing the legislative requirement for a worker to complete the full scope of training as currently defined, thus limiting worker mobility. Supporters of compulsory trade legislation within an industry training act also believe that the public is protected by mandatory training requirements.

It will require legislative change to permit challenges to obtain credentials in compulsory trades, and to allow for a flexible, modular training system as described in this paper. Since almost half the apprentices are in compulsory trades it would be difficult to implement the model described without applying the principles to training in these trades. This is one of the key elements requiring resolution in order to develop policy and legislative support for a new model of training in British Columbia.

A new Safety Standards Act for British Columbia is being developed that will regulate some of the current compulsory trades. In order to be licenced in British Columbia, workers and contractors will meet specified skills, knowledge and experience requirements.

This legislation could replace the training-related legislation that presently describes those compulsory trades, but legislation will not address all of the compulsory trades[2]. Also, there are other regulated trades where federal requirements are in place – for example, trades dealing with aircraft maintenance. These federal requirements will continue to regulate these trades.

An overview of the proposed legislation, its provisions for work inspection as well as for local flexibility in making determinations of who is qualified are outlined on the Web site

[2] See Appendix C for a list of trades which will be regulated by the new Safety Standards regulations

of the Ministry of Community, Aboriginal and Women's Services (CAWS), which is developing the legislation[3].

Accountability:

A new model must ensure the province can monitor progress toward the goals of improving quality and quantity of training. Measures may be outcome-based (more qualified workers) and process-based (more ways to train; more training available), but will need to be clearly articulated and understood to become the basis for changes to the training system. An accountability framework for publicly funded industry training will be developed to ensure that what is measured is what counts and that the public can see progress toward agreed goals.

As part of the new Accountability Framework, current measures of program delivery will be supported and further developed. Current student outcome data is often inadequate to verify and validate the quality and quantity of training. New measures are needed and could include longitudinal studies of workforce attachment and information on transition from trades to other credentials, and from academic programs to other trade and technical programs.

Performance monitoring will become an integral part of the accountability framework, will include employer and worker validation of the quality of training in a systematic way, and will ensure that the feedback is linked to program review and revision. Accountability measures will apply to all who receive public funds to provide training.

Governance:

As noted, the TAC has proposed that employers' views should drive industry training in the province through the establishment of a new *Industry Training Authority*. The majority of employers in British Columbia are small enterprises and their training

[3] See http://www.marh.gov.bc.ca/SES/

capacity is limited. They depend on trainers knowing what they want and need, but they have limited ability to influence current programs and standards.

As proposed by the TAC, a nine-member employer board, appointed by government, would be established with a mandate for industry training in the province. The board would be accountable to taxpayers through the accountability framework noted above, but would operate independently of government. The board would hire a chief executive officer and a management team to work with groups of employers and with trainers, public and private. The mandate of the proposed board is to oversee all industry training formerly administered through ITAC, including the development of standards to which learners would be trained in their programs.

Collectively, the board and its staff would form an *Industry Training Authority*. The *authority* would have legislated authority for policy and program development, and would work with employer groups to develop and deliver programs. For some purposes, employers and employer groups might come together to develop training programs and request provincial standards for these programs based on common needs. The authority will also ensure that training and education programs within their mandate meet learners' needs.

SUMMARY

Government would like to hear from the public, from employers, from learners and from current apprentices about the new training system model outlined in this paper. The next step is to hear from stakeholders about what is important and what concerns they have in regard to the changes outlined.

APPENDIX A: NEW MODEL OVERVIEW

TRAINING DEVELOPMENT

Employers specify competencies. Trainers develop and deliver programs to meet the competency profile requirements. A modularized approach to development and updating of competency expectations is envisioned. The province will continue to participate in development of Red Seal curriculum with cross-Canada partner provinces. Changes to Red Seal trades will inform provincial curriculum development to provincial standards. Other occupations will also need to meet provincial training standards to receive public funding.

TRAINING DELIVERY

One industry training program that incorporates provincial standards will replace the two separate streams of ELTT and apprenticeship training. ELTT courses will be shorter, but institutions and trainers will also develop new applied programs to deliver more "up front" co-op and classroom-based training. Certificates, diplomas and applied degrees in trade and technical areas will recognize workplace learning, including trades credentials toward other post-secondary programs and credentials. Private-public partnerships for training will allow delivery in more than one place and time to accumulate to a credential. Trainers and institutions will compete for students and offer programs. Employers will have more input into training content and delivery mechanisms.

CLIENT SERVICES:

- Apprentice Registration: Apprentices will register on line. A new self-registration system will be developed by Spring 2003.

- Technical Training:

    - *Apprentice* enrolls at institution of their choice for technical training after discussion with employer about timing and work priorities. New training models will replace rigid lock step requirements for training scheduling. Continuous intake, where practical, will increase training availability. Training will be available as blocks of time and in more flexible ways.

    - *Challenger* for credentials: Based on competencies, potentially in all trades, the challenge process recognizes prior learning and credentialling through equivalency and assessment. It will include practical and/or written exams to assess what someone knows and can do; learners can challenge for part of a credential or full provincial credential; gaining a provincial credential will allow challenger to write for Red Seal. Services will be available regionally. Those who are not successful at challenge will be linked to training to address skill and knowledge deficiencies and allow them to progress toward a credential.

- Trainees:
  - Various models for up-front training developed (see Training Delivery);
  - Recognition of competency via assessment can give dual credit toward apprenticeship and other certificates, diplomas and applied degrees.
  - New certificates, diplomas and applied degrees will be developed.

- Exams and Assessment: Practical and written assessments and Red Seal exams are available regionally; services will be delivered by contract; assessments will be available for parts of trades and groups of competencies. Red Seal exams will continue to be available.

- Credentials:
  - Specific skill sets requested by employers can be assessed and credentialed.
  - Credentials can be provided by trainers and institutions.
  - New credentials will be developed to reflect current workplace standards and skill sets and to allow learners to use trade credentials toward other kinds of post-secondary credentials.
  - The Province will approve provincial credentials.

- Licensing to do work (in regulated trades): Where applicable, people wanting to work in regulated trades will meet standards through processes established by the federal or provincial regulating agencies.

- Employer-Apprentice Agreements: Two-way apprenticeship agreements will be registered with the Province online. Employers validate their apprentices online and can update their records themselves to show current apprentices in training. Apprentices can update their employment information online.

ACCOUNTABILITY

- Learning outcomes surveys will incorporate additional measures of program quality.
- New measures will include employment outcomes for programs and employer satisfaction surveys.
- Current program delivery will be reviewed and adjusted to deliver training as needed to meet current and projected skills shortages.

FUNDING:

- ELTT and apprenticeship technical training funding will be combined.
- Pilot projects will be used as a vehicle to test and implement key elements of new model.
- Funding will be tied to program review and rationalization; programs will be funded within limit of resources available if they result in jobs, meet provincial standards, and satisfy learners and employers.
- Some funding will be allocated annually to emergent needs. Multi-year planning will be continued and expanded.

GOVERNANCE:

- An Industry Training Authority is proposed. This authority will replace the Industry Training and Apprenticeship Commission. It will be comprised of business representatives, a CEO and a small management team. The new board will operate as an agent of government and will have a mandate for the industry training programs formerly administered through ITAC.
- The authority will develop a strategic plan to increase the quality and quantity of industry training in British Columbia targeted to addressing current and projected skills shortages.

APPENDIX B: INDUSTRY TRAINING PILOT PROJECTS

Mobile Crane Operators Training
Operating Engineers local 115 will redesign training for apprentices to allow for specialization within the trade to meet employer needs and shorten the training time.

Mechanical Trades
The Centre for Curriculum, Transfer and Technology and industry and institutional partners will implement a core program across four trades: automotive mechanic, commercial transport mechanic, diesel mechanic and heavy duty mechanic.

The Mining Apprenticeship Program
The Mining Apprenticeship Program is a partnership of Elk Valley Mines and College of the Rockies. It is a flexible apprenticeship structure for heavy duty, welding, millwright, and electrical trades designed to meet the needs of local industry. Ministry funded FTES will be used to deliver the project.

Key Skills (Math, Science) Assessment and Development
The School of Electrical and Electronic Technology at BCIT will develop an online assessment program and develop online training software to meet individual and local industry needs.

Apprenticeship Alternative Delivery Model
Metro College, a private trainer, and the Automotive Retailers' Association will deliver Automotive Apprenticeship technical training for the trades of automotive service technician and autobody collision repair on weekends and evenings in the Vancouver Metro area.

Home Builders Specialty Training Program
The Mission School District and the Canadian Home Builders Association will design and deliver training in residential construction skills to secondary school students, you at and unemployed people at the Riverside Training Centre in Mission. The project will address local skills shortage needs.

Building Maintenance Worker Apprenticeship Program
The Secwepemc Cultural Education Society in partnership with BC Gas will deliver technical training which will address local needs for workers who can maintain and repair housing.

Technical Training for Drywall, Painting and Roofing
Kwantlen University College and the Roofing Contractors Association and the Painters and International Brotherhood of Painters and Allied Trades will deliver shorter length core trades training in drywall, roofing and painting.

Service Rigs Technical Training
Northern Lights College and Nabors Production Services will develop and deliver training for service rig workers which will address a training gap in the oil and gas sector in the northern region of B.C.

Millwright Training
North Island College and industry partners TimberWest and NorskeCanada will deliver training for millwright apprentices. There will be a focus on linking secondary school students with the workplace.

APPENDIX C: Regulated Trades Under the Proposed Safety Standards Act and Regulations

1. Power Engineers and Boiler and Pressure Vessels:

- Power Engineers
- Pressure Welder
- Refrigeration Mechanic (Indirect)

2. Electrical:

- Electrician
- Electrical Appliance Service
- Winder Electrician
- Elevator Mechanic
- Locksmith
- Power Line Technician
- Refrigeration Mechanic
- Security Alarms Installer
- Television and Radio Signal Distribution
- Full entertainment
- Low Energy Systems
- Solar Photovoltaic Systems
- Underground Raceway Installer
- Water Pump Installer

Certificates have been discontinued in the following trades but holders of these certificates are regulated:

- Overhead & Underground Installation
- Alarm and communication
- Heating Mechanic
- Medical/Dental Diagnostic Imaging
- Fuel Dispensing Equipment in Hazardous Environment
- Mobile Homes
- Cathodic Protection
- Swimming Pools

3. Gas:

- Gas Fitters
- Gas Appliance Service
- Gas Piping
- Recreational Vehicle Installation and Service
- Liquefied Petroleum Gas Vehicle Conversion
- Compressed Natural Gas Vehicle Conversion
- Compressed Natural Gas and Liquefied Petroleum Gas Vehicle conversion
- Gas Venting

- Gas Utility

Note: The following trades are pre-requisites to obtaining trade certification that is regulated by the safety legislation:

- Plumber
- Steamfitter/Pipefitter
- Refrigeration Mechanic
- Sprinkler System Installer
- Appliance Service Technician
- Recreation Vehicle Technician
- Automotive Service Technician
- Sheet Metal Worker

4. Elevating Devices and Aerial Tramways:

- Elevator Mechanics
- Electricians
- Welders
- Carpenters
- Millwrights
- Instrument Technicians
- Heavy Duty Mechanics
- Machinists
- Glaziers

Note:

1. Generally, trades certification is not required by Safety Regulation, however the work performed is regulated by Safety Regulation.
2. Welders are qualified in accordance with the adopted welding standards referenced by the applicable Elevating Devices and Passenger Ropeways Regulations.
3. Electricians must be qualified in accordance with the Electrical Safety Regulation for both disciplines

5. Railways:

- Motive Power Fireman
- Motive Power Operator Steam
- Motive Power Operator Internal Comb. Electric
- Motive Power Operator Internal Comb. Hydraulic
- Motive Power Operator Electric
- Motive Power Operator < 500 HP IC Electric
- Motive Power Operator < 500 HP IC Mechanical
- Motive Power Operator < 500 HP IC Hydraulic
- Motive Power Operator < 500 HP Electric
- Motive Power Operator Car Movers
- Motive Power Operator IC Electric Crane
- Motive Power Operator IC Mechanical Crane
- Motive Power Operator Hydraulic Crane
- Motive Power Operator Steam Crane

- Conductor
- Brakeman
- Maintenance of Way Foreman
- Maintenance of Way Machine Operator
- Sectionman
- Rail traffic Controller
- Control Operator
- Restricted-Remote control Operator